



Rabies in Kentucky – 2006

Michael Auslander, DVM, MSPH,
State Public Health Veterinarian,
Kentucky Department for Public Health

After a record low number of positive rabies cases in 2005 (17 cases), and no cases in domestic animals for the first time ever, the number of positive rabies cases in 2006 (30 cases) returned to slightly greater than the recent historical average (10-year average = 28.4 cases). Unfortunately, ten of the 2006 positive rabies cases were domestic animals compared to a 10-year average of 5.7 domestic animal cases.

The Kentucky Department for Public Health, Division of Laboratory Services and the Breathitt Veterinary Center received 1,126 animal specimens for rabies testing in 2006. There were 77 (6.8%) samples unsuitable for testing because of decomposition or extreme traumatic damage to the brain. Out of the 30 (2.7%) specimens that tested positive for rabies, there were 10 positive domestic animals (33.3% of positives), 11 positive bats (10-year mean = 7.4 cases), and 9 positive skunks (10-year mean = 14.2 cases) (Table 1, page 3).

The statewide distribution pattern of positive rabies cases shown in Figure 1 (page 3) may not be completely representative of rabies activity in the state; it may only reflect the distribution of samples submitted for testing. Almost all the samples submitted were due to some form of suspicious interaction between the animal tested and a human or domestic animal, and 84.4% of all submissions involved a bite or other physical contact with a human or domestic animal. For positive animals, 80.0% were known to involve rabies exposure to a human or domestic animal. Unexpectedly, positive bats, rather than skunks, accounted for the majority of wild animals that tested positive for rabies in Kentucky. Even though the number of positive bats

was 48.6% higher than the 10-year average, the percent of positive bats tested (5.1%) was slightly lower than the historical positive rate of 6.1%. This relative increase is most likely because the number of bats submitted for testing was double the usual number of bat submissions due to increased publicity about bat rabies in one urban area. The increased number of rabies positive dogs and cats is a reminder of the importance of pet rabies vaccination. Theoretically, there should be no rabid adult dogs, cats, or ferrets in Kentucky since there is a statewide law requiring that they be vaccinated against rabies by 4 months of age.

Unlike Ohio, Tennessee, and the states east of the Appalachian Mountains, Kentucky does not have the raccoon rabies variant epizootic. However, the Centers for Disease Control and Prevention (CDC) considers Kentucky at risk for the introduction of the raccoon rabies variant from West Virginia or Tennessee. Multiple federal and state agencies are actively engaged in preventing the spread of raccoon rabies into Kentucky from states in which it is already epizootic.

Human Rabies Postexposure Prophylaxis

Beginning June 16, 1997, rabies postexposure prophylaxis (PEP) became a reportable treatment. This surveillance activity was mandated in order to estimate how many patients in Kentucky receive this expensive treatment. Surveillance of PEP allows the Kentucky Department for Public Health (KDPH) to follow trends in PEP administration

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which would reflect any changes in the number of human exposures due to an increase or decrease in rabid or suspected rabid animals. This may serve as an early warning of any rabies epizootics. It also allows KDPH to estimate the financial burden of this public health intervention. Both private and public reporters can report through the Disease Surveillance Module of the Kentucky Electronic Public Health Record, or they may use the paper form EPID 200PEP, which is designed to guide the user through questions that may be useful in determining if PEP is indicated.

For 2006, 99 PEP events were reported to KDPH as required (84 reports were received from 12 health departments and 15 reports from 3 hospitals). Unfortunately, the actual number of persons administered PEP compared to those reported is difficult to determine. It is known from Division of Epidemiology and Health Planning phone consultations that not all PEP administrations are properly reported.

For the 99 patients for whom PEP was appropriately reported, over half (62.6%) were male, and the age distribution ranged from 5 days to 73 years old with a median age of 26 years. About half (53.6%) of PEP patients were reported to be covered by private medical insurance or workers compensation. Thirty-three (33.3%) PEP administrations resulted from suspected exposures from contact with dogs, 32 (32.3%) with bats, 18 (18.2%) with cats, 7 (7.1%) with raccoons, 2 (2.0%) with skunks, 1 (1.0%) with a bobcat, 1 (1.0%) with a chipmunk (PEP is not indicated for exposure to small rodents), 1 (1.0%) with a horse, 1 (1.0%) with an opossum, and 3 (3.0%) for which the animal species was not reported. An animal was available for rabies testing or observation for only 18 (18.2%) of the patients receiving PEP (7 patients were exposed to a known positive bat, 6 to positive cats, 2 to positive dogs, 2 to positive skunks, and 1 to a positive horse at an out-of-state horse show).

In most of the cases requiring PEP (81.8%), the animal was either killed and disposed of without testing, or allowed to escape and not captured for observation or testing. Victims of bites adversely contribute to the outcome of the event by not capturing the animal or by improperly killing the biting

animal. (The brain must remain intact for testing; gunshot to the head or clubbing are not acceptable euthanasia methods.)

Kentucky Revised Statute 258.065 requires all medical providers, parents of children bitten, or adults bitten that don't require medical care to report animal bites to the **local health department** within 12 hours of the incident or the next working day if the local health department is closed. Prompt reporting of the bite provides an opportunity for local health department personnel to either quarantine the domestic animal for observation or have the animal (wild or domestic) tested for rabies. If the incident is reported after a lengthy time delay, the chances of recovering the animal for testing or observation are remote.

For previously unvaccinated individuals, PEP is a series of 5 doses of vaccine over 28 days plus the administration of human rabies immune globulin. PEP biologics do carry a low risk for adverse side effects, are only available in limited supply, are very expensive (average wholesale cost of the biologics for a 165-pound person is about \$1500), and require considerable time expenditures for the provider and the patient. For these reasons PEP should not be administered unless there is a well-founded indication for its use.

For more information on rabies, PEP, or reporting PEP, contact the Division of Epidemiology and Health Planning at (502) 564-3418 or toll free at (888) 9REPORT.

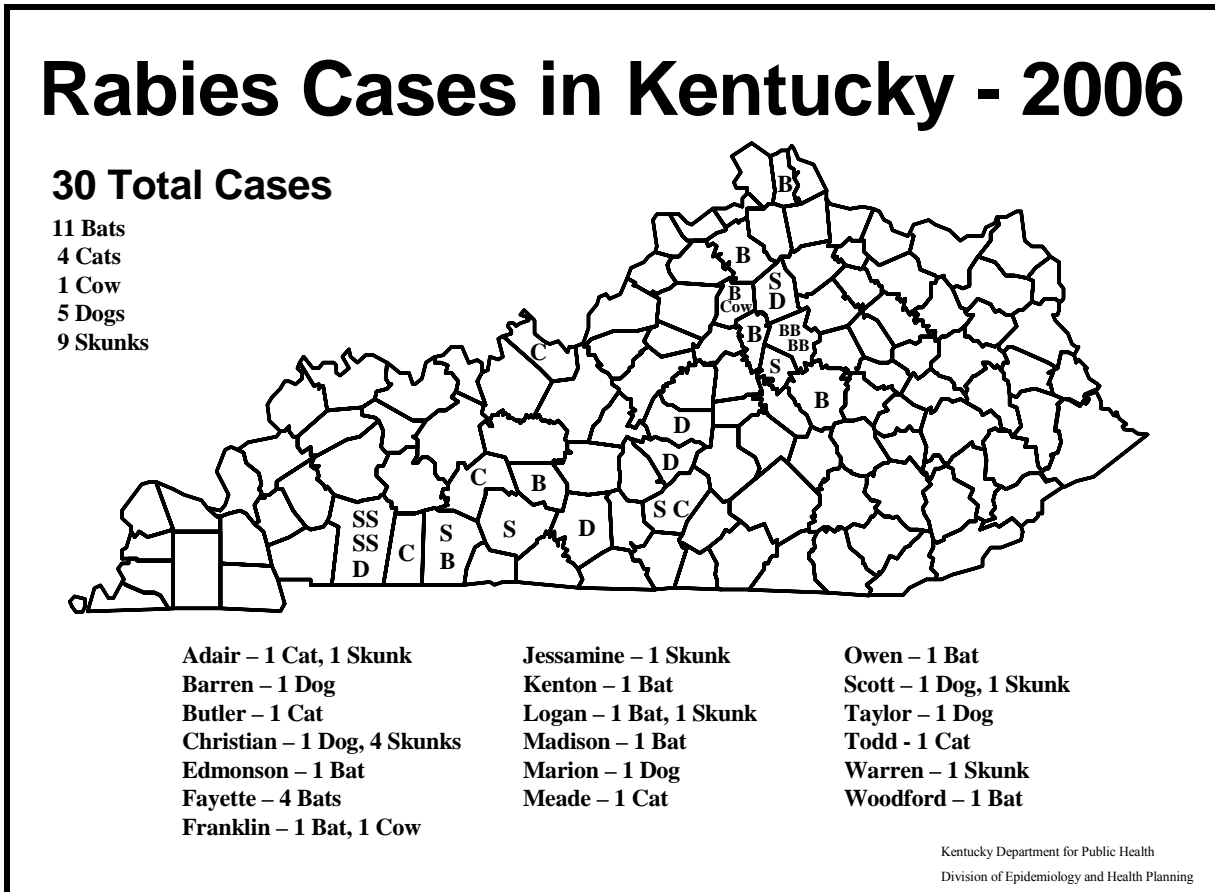
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BarbaraJ.Fox@ky.gov
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Table 1. Animals submitted for testing and number of positives by species in Kentucky, 2006

Species	Number Received	% of Total	Number Positive	% Positive
Canine (domestic)	308	27.4	5	1.6
Feline (domestic)	297	26.4	4	1.3
Bovine	37	3.3	1	2.7
Equine	42	3.7	0	0.0
Other Domestic	12	1.1	0	0.0
Rodents/Rabbits	45	4.0	0	0.0
Bat	214	19.0	11	5.1
Fox	15	1.3	0	0.0
Raccoon	95	8.4	0	0.0
Skunk	26	2.3	9	34.6
Other Wildlife	35	3.1	0	0
Totals	1126	100.0	30	2.7

Figure 1. Rabies cases in Kentucky - 2006



**National Infant Immunization Week
April 21 - 28, 2007**

Opportune time to focus on raising immunization coverage levels in state

Diane Chism, R.N., Perinatal Hepatitis B
Coordinator/Vaccine Preventable Diseases
Coordinator, Kentucky
Immunization Program

National Infant Immunization Week (NIIW) scheduled for April 21 – 28, 2007 is an opportunity for all communities throughout the U.S. to focus local and national attention on the importance of proper immunization for infants and toddlers 24 months and younger. NIIW will be a time to highlight past achievements and focus our efforts on future endeavors to continue to raise immunization coverage levels in Kentucky.

As NIIW approaches, local communities, health departments, healthcare organizations, and healthcare providers can plan activities or campaigns about immunizing Kentucky's infants and children. Additional information and materials for NIIW 2007 are available on the Centers for Disease Control and Prevention's (CDC) National Immunization Program's Web site (www.cdc.gov/nip/events/niiw/default.htm).

The goals of NIIW are to:

1. Highlight the importance and benefits of childhood immunizations to parents.
2. Educate parents and caregivers about the importance of vaccinations to protect children against vaccine-preventable diseases.
3. Focus on Kentucky's immunization achievements and celebrate accomplishments made through successful collaboration.
4. Encourage better communication between parents/caregivers and their health care providers.
5. Remind parents/caregivers they need to make and keep needed immunization appointments.
6. Provide parents/caregivers with a toll-free number, 800 CDC-INFO (800-232-4636) to locate a Vaccines for Children (VFC) program that offers free immunizations for their infants if they do not have a healthcare provider.

Examples of 2006 NIIW week activities in Kentucky included:

- A Let's Immunize Very Early (L.I.V.E.) Coalition Immunization Event in Bowling Green, Kentucky was held on April 25, 2006 where Immunization Program staff read *Maxine Vaccine* to three sessions of children (ages 18 – 35 months old) at the Bowling Green Public Library.
- A L.I.V.E. Celebration Party was held with approximately 15 children attending the first session. Refreshments were served at each session and each child received a t-shirt and goody bag containing immunization information and a lock-top sippy cup. Children from each session were eligible for a drawing to win a new tricycle at drawings that were held at the Warren County Health Department and at a local pediatrician's office. Children ages 18 – 35 months of age who were vaccinated during the month of April were eligible for the drawing.

Additional tips for healthcare providers to improve timely vaccinations and ultimately increase immunization coverage rates include:

- Encourage local hospitals to conduct grand rounds focusing on infant and childhood immunization.
- Persuade hospitals and health maintenance organizations to promote immunizations in prenatal classes and during prenatal visits.
- Provide after-hours and weekend immunization services to reduce wait times and eliminate access barriers.
- Implement a reminder-recall system.
- Create and maintain a patient-friendly environment and provide culturally appropriate immunization education materials.
- Hold in-service training seminars to focus on record-keeping, eliminating access barriers and reminder-recall systems for medical, health and social service agencies.
- Increasing vaccinations for those deemed "at risk" will enhance children's immune system and develop protection against future infections.

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The National Immunization Survey (www.cdc.gov/nip/coverage/default.htm#nis) reports the state of Kentucky having an early childhood immunization coverage level of 79.7% (+/- 7.1) for children 19 – 35 months of age for the year 2005. This coverage level includes the 4:3:1:3:3 vaccine series (4-DTaP, 3-Polio, 1-MMR, 3-Hib, 3-HBV). Additionally, the coverage level for the 4:3:1:3:3:1 vaccine series (4-DTaP, 3-Polio, 1-MMR, 3-Hib, 3-HBV and 1-Varicella) was 71.1% (+/- 8.1) for children 19 – 35 months of age for the year 2005. Further improving these coverage levels will protect more of Kentucky's children against potentially serious diseases.

The Department for Public Health and the Immunization Program challenges all healthcare workers to increase timely vaccinations throughout the state in recognition of National Infant Immunization Week. If you have any questions, please feel free to contact Diane Chism, R.N. at (520) 564-4478 or email Diane.Chism@ky.gov.

**National Medical Laboratory
Professionals Week**

Quality Care from Quality Professionals is this year's theme for national observation

A. Medina Tipton, MHA, Health Policy Specialist,
Division of Laboratory Services

The Division of Laboratory Services (DLS) in Frankfort will be celebrating National Medical Laboratory Professionals Week (NMLPW) April 23-27. This year's theme is "*quality care from quality professionals*". and is an opportunity for medical laboratory personnel to celebrate their professionalism and to be recognized for their efforts. It is also a time to inform and educate medical colleagues and the public about the medical laboratory. Medical laboratory professionals are key members of the healthcare team and their work is vital to the health of Kentuckians. Since laboratorians often work behind the scenes, few people know much about the critical testing they perform every day. NMLPW offers laboratorians the chance to show pride in their profession while promoting the life-saving work of the laboratory.

In 2006, after 30 years of being called "National Medical Laboratory Week", the name of the observation was changed to reflect the fact that a laboratory is more "people" than a "place". DLS has been celebrating NMLPW since 1986, offering several different activities each year such as serving refreshments, themed bingo games and scavenger hunts. The week culminates with an outdoor luncheon called "Spring Fling", which is provided in order for staff to step outside of the lab and interact on a more casual level. Invited guests such as the Commissioner for Public Health often attend and express gratitude to the staff for their commitment to the health of the Commonwealth.

Overall, this week is meant to celebrate the work that is performed within DLS and to promote camaraderie with those who may not see each other on a daily basis. This year the following activities have been scheduled and will be held at DLS:

- Monday April 23rd - Brunch and open house
- Tuesday, April 24th - Guessing games and cake walk
- Wednesday, April 25th - Theme lunch and bingo
- Thursday, April 26th - Bowling and Ice Cream Social
- Friday, April 27th - Spring Fling

Turn to page 6 for a photo of last year's event held at DLS.

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Quality Care from Quality Professionals
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William D. Hacker, MD, FAAP, CPE
Commissioner, Department for Public Health

Kraig E. Humbaugh, MD, MPH
State Epidemiologist and Director,
Division of Epidemiology and Health Planning

Barbara J. Fox, MS
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Photo courtesy of Ira Fink, Lab Technician, Environmental Section

Dr. William Hacker, Commissioner for Public Health and acting Undersecretary for Health at the Cabinet for Health and Family Services, gave encouraging remarks at the 2006 “Spring Fling”.